

## Product datasheet for **MR230286**

### Nox4 (NM\_001285835) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nox4 (NM_001285835) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nox4
Synonyms:	A1648021
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR230286 representing NM\_001285835  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTGCCGACAGTCCTGGCTTATCTTCGAGGATCACAGAAGTCCCTAGCAGGAGAACAAGAAGATTGT  
 TGGATAAAGCAAGACTCTACACATCACATGTGGTGAACATCTGTATTTCTCAGGTGTGCATGTAGC  
 CGCCCACTTGGTGAATGCCCTCACTTTTCAGTGAACACAGTGAAGATTTCTTGAACGAATGCAGCA  
 AGATACCAGAATGAGGATCCCAGAAAGCTTCTCTTACAACCATTCCTGGTCTGACGGGTGTCTGCATGG  
 TGGTGGTATTGTTCTCATGTTACAGCTTCTACCTACGCAATAAGAGTTTCTAATTATGATATCTTCTG  
 GTATACTACAACCTCTTCTTTGTCTTCTACATGCTGCTGCTGTTGCATGTTTCAGGTGGTTTGTGAAG  
 TATCAGACAAATGTAGACTCACCTCCTGGCTGCATTAGTCTTAACCAGACATCATCCAGAATATGT  
 CCATACCAGACTACGTCTCAGAACATTTTCATGGATCTTGCCTCGAGGGTTTTCAAATAGAAGATCG  
 TTACCAGAAAACACTTGTGAAGATTTGCCTGGAAGAACCAGTCCAAGCTCATTCCACAGACCTGG  
 ATTTGGATTTCTGGACCTTTGTGCCTTTATTGTGCGGAGAGACTTACCGATGCATCAGGAGCAACAAC  
 CTGTCACCATCATCTCAGTCATCAATCATCCCTCTGATGTAATGGAACCTCGTATGATCAAGAAAACCT  
 TAAAGCAAGACCTGGCCAGTATATTATTCTCCATTGCCCCAGTGTATCAGCATTAGAAAACCAACCTTT  
 ACTCTCACAATGTGTCCTACTGAAACCAAGCAACATTTGGTGTCCACTTTAAAGTAGTAGGAGACTGGA  
 CAGAACGATCCGGGATTTGCTACTGCCTCCATCAAGTCAAGACTCTGAGATTCTGCCCTCATTCACTC  
 TAGAAATTACCCTAAGTTATACATTGATGGTCCATTTGGAAGCCCATTTGAGGAGTCACTGAACTATGAA  
 GTTAGTCTCTGTGTGGCTGGAGGCATTGGAGTCACTCCATTTGCATCGATACTAAACACTCTACTGGATG  
 ACTGGAACCATACAAGTTAAGAAGACTGTACTTTATCTGGGTGTCAGAGACATCCAATCATTCCAGT  
 GTTGCAGATTTACTCTGTGTGTTGCATAACAAGTTTTGGCAAGAAAACAGACCTGACTTTGTGAACATC  
 CAGCTGTACCTCAGTCAAACAGATGGGATTCAGAAGATAATTGGAGAAAAATATCACACTGAATTCGA  
 GACTTTTCATTGGGCGTCTCGGTGAAACTTTTTATTGATGAAATAGCAAAATGTAACAGAGGGAAAAAC  
 AGTTGGAGTTTTCTGCTGTGGACCCAGTTCTATTTCCAAGACTCTTCATAGTTTGAGTAACCGGAACAAC  
 TCATATGGGACAAAATTTGAATACAATAAAGAATCCTTCAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230286 representing NM\_001285835  
 Red=Cloning site Green=Tags(s)

MCRTVLA YLRGSQKVPSRRTRRLLDKSKTLHITCGVTICIFSGVHVA AHLVNALNFSVNYSEDFLELNAA  
 RYQNEPRKLLFTTIPGLTGVCMVVFLMVTASTYAIRVSNYDIFWYTHNLFFVYMLLLLVHSGGLLK  
 YQTNVDTHPPGCISLNQTSQNMSIPDYVSEHFHGLPRGFSKLEDRYQKTLVKICLEEPKFAQHFPQW  
 IWI SGPLCLYCAERLYRCIRSNKPVTIISVINHPSDVMELRMIKENFKARPGQYIILHCPSVSALENHFP  
 TLTMCPTETKATFGVHFVVDWTERFRDLLLLPPSSQDSEILPFIHSRNYPKLYIDGPFGPSFEESLNYE  
 VSLCVAGGIGVTPFASILNLLDDWKPYKLRLLYFIWVCRDIQSFQWADLLCVLHNKFWQENRPFVNI  
 QLYLSQTDGIQKIIGEKYHTLNSRLFGRPRWKLLEFDEIAKCNRGKTVGVFCCGPSSISKTLHLSNRRN  
 SYGTFEYNKESFS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

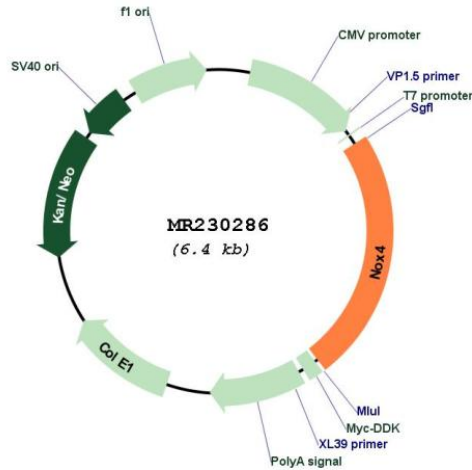
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_001285835

**ORF Size:** 1512 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_001285835.1](#), [NP\\_001272764.1](#)

**RefSeq Size:** 3756 bp

**RefSeq ORF:** 1515 bp

**Locus ID:** 50490

**Cytogenetics:** 7 D3

**MW:** 58.5 kDa

**Gene Summary:** Constitutive NADPH oxidase which generates superoxide intracellularly upon formation of a complex with CYBA/p22phox. Regulates signaling cascades probably through phosphatases inhibition. May function as an oxygen sensor regulating the KCNK3/TASK-1 potassium channel and HIF1A activity. May regulate insulin signaling cascade. May play a role in apoptosis, bone resorption and lipopolysaccharide-mediated activation of NFKB.[UniProtKB/Swiss-Prot Function]